YARN DYE TUBE HAVING OPPOSITE END PORTIONS ADAPTED FOR NESTED STACKING

Abstract of the Disclosure

A yarn dye tube includes end portions having male and female elements for aligned stacking of multiple tubes. The female end portion includes a cylindrical ring having non-perforating recesses defining reduced wall portions having a thickness of at least one-half of a wall thickness of ring. Each recess also includes arcuate ends for reducing stress concentrations. The diameter of the inner surface of the female element is greater than that of the inner surface of the ring defining an annular distance therebetween. A radially extending shoulder at the terminal end of the ring contacts the male element of an adjacent tube in a stack of aligned tubes. A fillet at the terminal end of the first end portion ring extends over a substantial portion of the annular distance for reducing stress concentrations.